

**Meeting of the States Parties to the Convention
on the Prohibition of the Development,
Production and Stockpiling of Bacteriological
(Biological) and Toxin Weapons and on Their
Destruction**

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**Consideration of the provision of assistance and
coordination with relevant organizations upon
request by any State Party in the case of alleged
use of biological or toxin weapons, including
improving national capabilities for disease surveillance,
detection and diagnosis and public health systems.**

**United Kingdom activities and capabilities for responding to
a biological weapons attack**

**Submitted by the United Kingdom of Great Britain and Northern
Ireland**

I. Introduction

1. The fundamental practical question that needs to be addressed at this year's meeting was set by Ambassador Portales in his letter of 25 February to States Parties: "if a biological weapon were to be used tomorrow, how would we, the States Parties, individually and collectively respond?" Our collective objective is to prevent a biological attack (the BTWC has a part to play in this strategy) and where that is not possible, to put in place measures to ensure that we can recover from it quickly and with minimal loss of life. This requires continuing preparation and planning across a range of government departments and agencies; police, fire and rescue services; health professionals and the armed forces.

2. The UK Government's strategy is to reduce the likelihood of a Chemical, Biological, Radiological or Nuclear (CBRN) attack, and if an attack should occur, respond quickly to minimise harm and restore public confidence. Many of the measures taken or

planned are common to all these threats.¹ The objectives of this strategy fall under three main headings:

- (a) Pursue: to stop attacks occurring;
- (b) Protect: to deny terrorist access to CBRN materials;
- (c) Prepare: to respond promptly and effectively to an attack and recover as quickly as possible from its impact.

3. Regular exercises – table-top and field – are essential tools in building and sustaining an effective capability to contain the consequences of any BW attack, to restore confidence and to recover rapidly with minimal loss of life and disruption to daily life and the economic well-being of the country. This paper outlines the UK's overall approach to countering the CBRN threat, highlights those aspects that are particularly relevant to dealing with the consequences of a BW attack, and outlines some lessons from various exercises designed to test procedures and responses. We believe that some of these lessons may be relevant and of interest for other States Parties.

II. Pursue

4. The security and intelligence agencies and the police are responsible for finding those who are intent on using or acquiring CBRN material. A sophisticated forensic capability may be required to provide evidence in the event of prosecution of those planning a CBRN attack. The UK Government has established a National Network of Laboratories (NNL) for the rapid analysis of chemical and biological material to accredited standards. This is an example of the Government working across departments and with private industry. The Office for Security and Counter Terrorism (OSCT) is leading work, supported by the Ministry of Defence and the Home Office Scientific Development Branch (HOSDB), to establish further forensic capabilities from recovery of materials through to their analysis. These capabilities include:

- (a) Improved techniques for at-scene sampling;
- (b) Accredited methods for laboratory analysis in a range of evidence, including environmental samples, food and body fluids;
- (c) Detailed guidance on optimal handling and storage of clinical samples.

III. Protect

5. The police National Counter Terrorism Security Office (NaCTSO) and the Centre for the Protection of the National Infrastructure (CPNI) jointly support the provision of specialist advice on the security of CBRN materials which are widely available throughout society. NaCTSO enforces the Anti Terrorism, Crime and Security Act 2001 (ATCSA), which requires facilities holding certain pathogens and toxins to put in place specific security measures. It has developed an awareness raising programme for the academic sector and encouraged suppliers of dual-use products to be more enquiring of new customers and to report suspicious activity. CPNI has advised private sector organisations

¹ The United Kingdom's Strategy for Countering Chemical, Biological, Radiological and Nuclear (CBRN) Terrorism can be found at:
<http://tna.europarchive.org/20100419081706/http://security.homeoffice.gov.uk/news-publications/publication-search/cbrn-guidance/strat-countering-use-of-CBRN?view=Binary>

on specific design improvements to protect them from the effects of CBRN agents, and measures have been taken by utility organisations, e.g. food and water industries. A Vulnerability Self-Assessment Tool is being designed to help those responsible for public safety at crowded places to assess security and identify protective security measures required to address any vulnerabilities.

IV. Prepare

6. Preparation is of vital importance. One of our priorities is to make sure that we are prepared to respond to a CBRN attack and mitigate its effects. Since 2001 we have:

- (a) Agreed a multi-agency national response to CBRN incidents;
- (b) Trained and equipped police officers to deal with CBRN incidents;
- (c) Developed facilities within the Fire and Rescue Service to manage mass public decontamination;
- (d) Trained disaster victim identification teams to work with contaminated fatalities;
- (e) Created specialist teams within the Ambulance Service to work in hazardous areas and improve survival rates;
- (f) Established the Government Decontamination Service to provide expertise and guidance to authorities regarding contaminated buildings and areas;
- (g) Established a National Network of Laboratories to ensure the early identification of a possible chemical or biological incident;
- (h) Established the Police National CBRN Centre to: provide a single source of advice for police forces and other first responders on CBRN matters; co-ordinate major incident responses; develop and procure specialist equipment; and increase the number of CBRN trained officers.

V. Response: detection

7. Knowing when one is being attacked is a crucial aspect of any defensive strategy to combat BW use. A rapid response to a BW attack requires early detection of materials that have been released. Prompt identification of the agent being used is essential for the deployment of effective medical countermeasures before symptoms appear. However, in some cases there may be no warning before an attack and no announcement or indication that an attack has occurred. Therefore, in its simplest form, detection may be based purely on obvious medical signs and symptoms amongst affected people.

8. Biological agents may be difficult to detect, and in most cases detection will involve the use of specialist equipment by trained personnel. Early recognition of a covert release of a biological agent requires that clinicians remain aware of the possibility, and are willing to alert and consult specialised advisers. Being alert to the unusual, the unexpected, and the case that 'just doesn't fit' is critical.² In this context, the UK has developed on-line training for its healthcare professionals, which aims to enhance existing training in preparing to

² Health Protection Agency, Biological incident action guide at:
http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1194947395481

respond during a terrorist attack or accidental release.³ Early indication that an attack has taken place and early detection of agents will assist in ensuring that medical countermeasures such as antibiotics and other drugs are available in a timely and effective manner. In this regard, we constantly keep under review options for enhancing the UK's medical response through stockpiling drugs and vaccines to mitigate the effects of exposure to an attack.

9. The UK has conducted a comprehensive review of detection, identification and monitoring equipment and has collaborated with industry and international partners to assess existing biological detection equipment in particular. Such systems vary from those that are portable and relatively simple in operation to those that are sophisticated and can be operated remotely and automatically. We have also increased the number of military and police personnel trained to search and render safe CBRN devices.

VI. Response: improving preparedness

10. Over the past five years, the UK has built up its preparedness capabilities, including organizational and planning resources. One such tool is The Model Response to CBRN Events. This is a classified document to guide responding agencies and the emergency services and provide a holistic picture of an ideal response to an attack. The Model Response details the actions required, and when, where and by whom those actions would be carried out. Initial programmes to provide capabilities to meet the Model Response are largely complete. The Police Operational Response Programme was established to enable the police to meet the requirements of the Model Response. A national police CBRN centre has been established, which is also available to other emergency services and operates around the clock every day of the year. The centre has brought CBRN equipment into service and has briefed over 5,000 individuals on responding to an attack. Over 650 emergency service commanders or police responders have completed specialist courses. To enhance and maintain capability, exercises have been managed or supported by the centre's exercise team.

11. The UK has equipped 18 sites nationwide with trained officers to improve the multi-agency response to a CBRN attack and have improved command procedures through the provision of tactical guidance, training and exercising. Effective command, control and communications are essential elements in an ability to respond effectively to any BW attack. The UK's approach to emergency response and recovery is founded on a bottom-up approach in which operations are planned and decisions are made at the lowest appropriate level.

12. Other important activities include training of personnel who would be expected to deal directly with the consequences of an attack. CBRN training on mass decontamination has been provided for 90% of fire and rescue personnel to enable them to reduce public exposure following contamination. Hazardous Area Response Teams (HART) are being introduced in the ambulance services. These teams specialise in operating in the contaminated zone so that those affected can receive treatment as soon as possible. Unless kept up-to-date, capabilities such as a cadre of well-trained, experienced personnel can atrophy. It is thus essential to ensure that the levels of trained and equipped police officers, fire and rescue service decontamination units and HART are maintained. Provision of timely and reliable scientific advice in a crisis, both to first responders and decision-makers, is another essential element in an effective national capability to respond.

³ <http://www.hpa.org.uk/ehealth>
<http://www.hpa.org.uk/Emergency/training.htm>

VII. Recovery and decontamination

13. Recovering from a CBRN incident requires:

- (a) Rapid removal of any residual hazard;
- (b) Re-occupation of domestic and business premises;
- (c) Return to normal function of local essential services;
- (d) Provision of longer-term health care and advice.

Planning for all of these is needed at the earliest opportunity so that a return to normality can be achieved as rapidly as possible. The UK has established, through the Government Decontamination Service, a contractor framework of specialist companies, enabling expert advice and decontamination expertise to be brought to bear as quickly as possible following CBRN attacks. We have also carried out a national CBRN recovery exercise involving national and local government and the emergency services, to help identify issues that might arise if there was an actual attack.

14. The UK aims to further minimise and contain the hazard associated with a CBRN release. Further work will address:

- (a) Containment of CBRN materials either pre- or post-release to limit the impact of an attack;
- (b) Reducing the amount of CBRN waste produced as a result of the decontamination process;
- (c) Decontamination of extended areas, individuals and personal effects;
- (d) Use of expedient, non-specialist, methods for the urgent reduction of levels of contamination at scene;
- (e) Environmental sampling capability required to measure the extent of contamination;
- (f) Practical exercises to test recovery capability.

VIII. Science and technology

15. Science and technology play a key part in implementing the UK strategy for countering the CBRN threat. The Government has published a document setting out how it intends to use science and technology to address the terrorist threat.⁴ The strategy places great emphasis on identifying science and technology requirements across Government, the police service and wider law enforcement to ensure that the right solutions are developed. It seeks increased partnership and engagement with industry and academia, and enhanced international collaboration.

16. One of the key challenges in this strategy is understanding and countering CBRN threats. As noted in the UK's annual CBM submissions, the Home Office funds a programme aimed at enhancing the UK's capability to minimise the risk of a CBRN terrorist incident. Key elements of this work focus on:

⁴ <http://webarchive.nationalarchives.gov.uk/20100418065544/http://security.homeoffice.gov.uk/news-publications/publication-search/science-technology/Science-Technology-strategy/Science-Technology-strategy?view=Binary>

- (a) Detection and analysis of biological materials;
- (b) Medical countermeasures to biological agents;
- (c) Development and assessment of protective equipment against biological materials;
- (d) Hazard assessment and decontamination of biological agents;
- (e) Developing an understanding of the impact and spread of biological materials.

A cross-Government board sets the programme's research priorities and the research is quality assured by an external scientific advisory board. The latest invitation to submit research bids for this programme identifies three high level requirements: laboratory analysis, including methods of attribution; detection; and hazard management.⁵ The programme has provided new guidance and equipment, modelling tools, risk reduction, medical countermeasures and has quality assured commercial off-the-shelf projects.

IX. Exercises

17. Exercises are essential in sustaining and improving capabilities. The UK regularly tests response arrangements to CBRN attacks at local level by exercising the emergency services and other responding agencies. The lessons identified are used to strengthen operational training and response plans. Exercises enable us to validate plans and systems thoroughly, train frontline responders, and highlight vulnerabilities. Planning for emergencies cannot be considered reliable until it is exercised and has proved to be workable, especially since false confidence may be placed in the integrity of a written plan. National exercises are the culminating event of a structured series of smaller scale preparatory exercises. These may include tabletop, tactical field training and other exercises aimed at developing greater preparedness. Both live and tabletop exercises cover a range of scenarios. An important aim of an exercise should be to make people feel more comfortable in their roles and to build morale. Some general lessons learned from such exercises include the need to address fully the command, control and coordination of multi-agency assets during the initial response, and to increase the understanding of processes and authorities among all the agencies involved as the operation progresses. A good appreciation of the threat and risk, and rapid processing of real-time information during the operation are also important.

18. The Health Protection Agency (HPA), on behalf of the Department of Health, runs regular strategic level exercises. These help evaluate emergency health plans already in place, to ensure that the health community can respond more effectively in a rapid and co-ordinated way with multiagency partners to any deliberate release of biological agents.⁶ In addition, the HPA also runs one operational field exercise per year exploring logistical elements of the response, which has included exercises on mass decontamination and distribution of mass prophylaxis. An important element of each exercise is a desire to reflect the pressure exerted by the media in the play. This is achieved both through mock press conferences and the use of professional journalists to ask probing questions. In recent

⁵ <http://tna.europarchive.org/20100419081706/http://security.homeoffice.gov.uk/news-publications/publication-search/science-technology/technolog-research-call1/research-requirements-documents?view=Binary>

⁶ http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1247038682069

years several exercises have involved a biological agent scenario. Some key lessons to emerge from these are:

- (a) Exercises provide a rare opportunity, in a safe environment, to develop strong working relationships with colleagues in a multiagency environment which aids closer working in the event of a real incident;
- (b) The health community is used to working in a consensus rather than a command and control environment - exercises help to identify and reinforce training needs within the health community to enable, for example, more effective strategic leadership in a crisis situation;
- (c) Scientific advice, when required, should be provided in a timely and easily understandable way to aid the decision making process and not confound it. There should also be a single agreed source of scientific advice;
- (d) Organisations need to know where and how they can access appropriate expert advice rapidly;
- (e) Barriers to information sharing between organisations, such as health and law enforcement, should be removed or minimised wherever possible through agreed protocols;
- (f) All organisations need to understand the importance of evidence and the evidence chain in a deliberate release incident, and the constraints and limitations that this imposes;
- (g) The training and placement of liaison officers in responding organisations improves the effectiveness of interagency communication and information flow;
- (h) Business continuity plans need to reflect the increased capacity required to respond to emergencies;
- (i) Recovery is often overlooked during the initial stages of an acute response; this is a serious weakness. Recovery should be planned from the start of an incident;
- (j) Outputs to the media from incidents must be agreed, coordinated and timely to prevent contradictory or unhelpful information being released.

X. Conclusions

19. Preparation is essential for an effective response. Improvising a response during an incident is unlikely to be effective. One can never be totally prepared for all eventualities, but if the basics are right, especially the command and control of any response to a BW incident and recovery, then mitigation of the adverse consequences of any use of BW is achievable. Regular exercises involving all key players – from first responders to law enforcement agencies – are essential as part of national preparedness planning for responding to any biological weapons attack. States Parties themselves are best placed to make their own assessments of the likelihood of such an attack and of vulnerabilities, and to plan accordingly.
